UNC
SCHOOL OF INFORMATION
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INTRODUCTION TO HUMAN-COMPUTER INTERACTION AND INTERACTION DESIGN

Barbara M. Wildemuth
School of Information & Library Science
University of North Carolina at Chapel Hill

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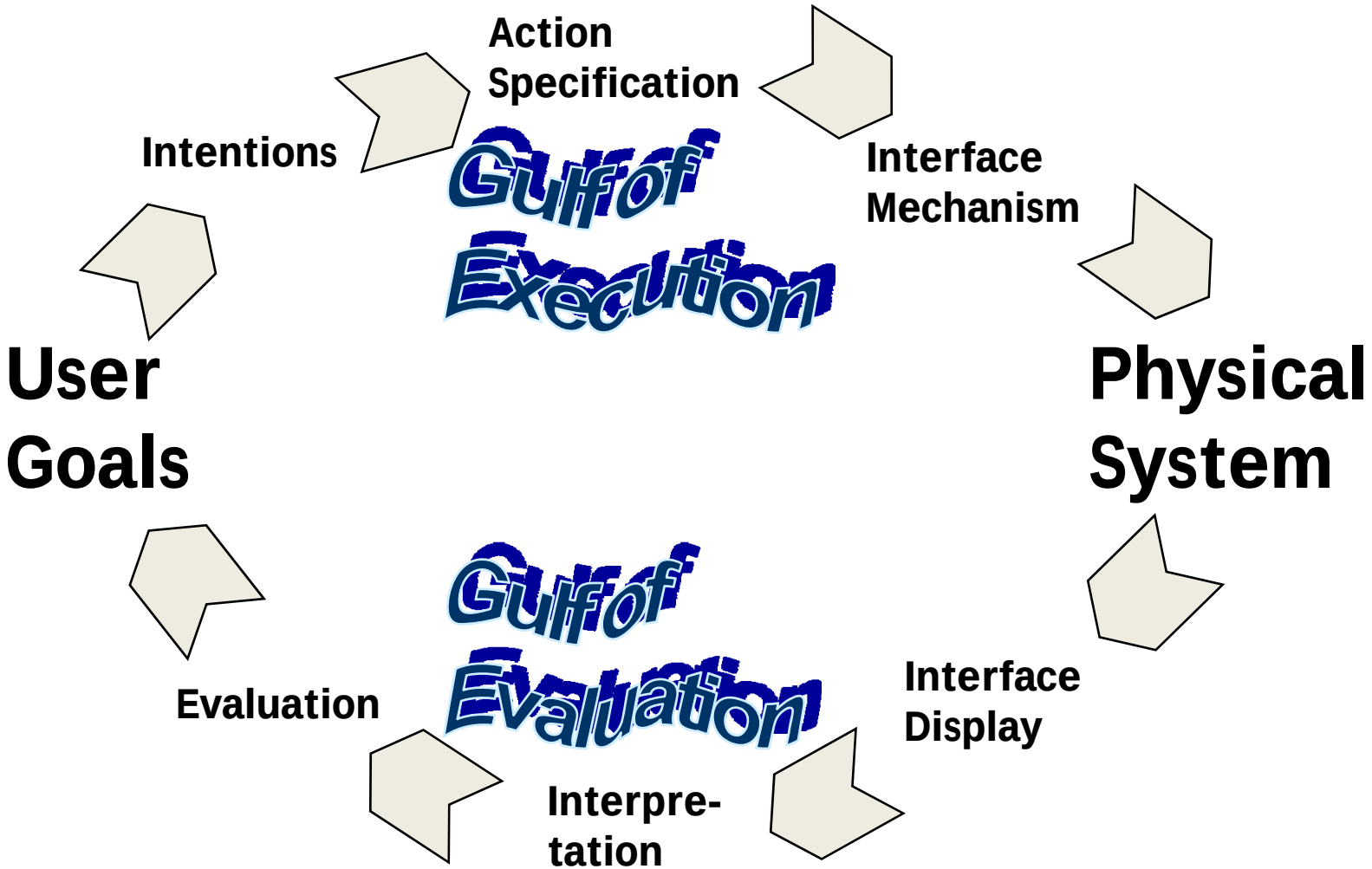
Norman's Stages of Action Model



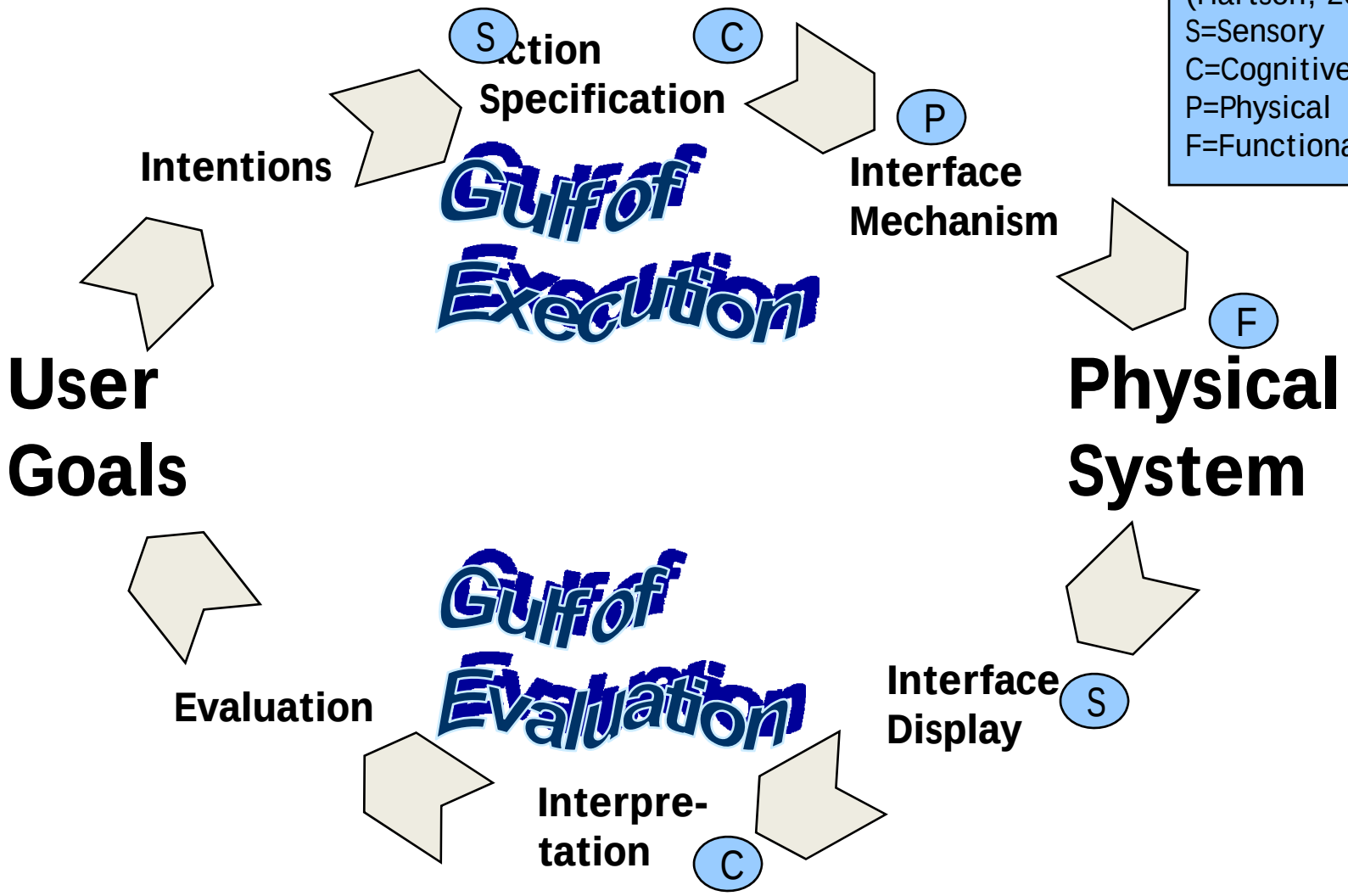
Hutchins, Hollan, & Norman, 1986

Affordances

- An attribute of an object that supports a particular interaction with it
  - Chairs afford sitting

Affordances

AFFORDANCES
(Hartson, 2003)
S=Sensory
C=Cognitive
P=Physical
F=Functional



Quick-Think Exercise

- Consider google as a physical system.
  - What user goals might motivate the use of google?
  - What interface mechanisms are provided for interaction?
  - What sensory, cognitive, physical, and functional affordances does google's search interface provide?
  - What interface display characteristics can support interpretation and evaluation?
  - What sensory, cognitive, physical, and functional affordances does google's results list provide?

Where does interaction design begin?

- Understand the intended users
- Understand the goals they want to accomplish

Consider the design of this building

Does the quality of the design make a difference?

- Yes, because people won't use a system that is unusable

Designing interactions

- Design: To create, fashion, execute, or construct according to plan (Merriam-Webster online dictionary)

The Design Lifecycle

- See Gulliksen et al. (2003) diagram pdf, http://www.it.uu.se/research/hci/acsd/KeyPrinciplesPoster-v.1.2en.pdf

Quick-Think Exercise

- Imagine that you are re-designing the website for the Charles University Institute of Information Studies and Librarianship.
  - Who should you consult about their needs for the website? Be sure to consider both its users and other stakeholders.
  - What information would you try to find out from each group or person?

Quick-Think Exercise

- Have you ever been involved in the design of a computer system? Something similar?
- How closely does your experience match with the systems development lifecycle described by Gulliksen and his colleagues?

What are the characteristics of a "good" design?

- The system is usable
  - Effective, efficient, safe, useful, easy to learn, easy to remember
- The system provides a satisfactory user experience
  - Enjoyable, engaging, fun to use

Based on Sharp, Preece & Rogers, 2006

User experience examples

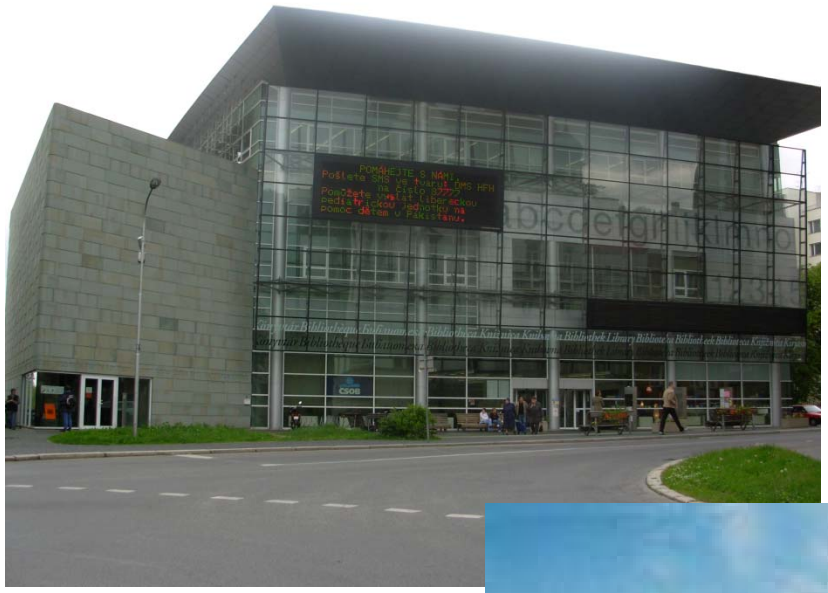
- From architecture:
  - New Czech national library
  - Liberec Library
- From museum websites:
  - Mucha Museum
  - Museum of Communism
- From e-commerce websites:
  - Lord & Taylor
  - H&M
  - WalMart
  - Tesco
- J.K. Rowling website

Quick-Think Exercise

- For each example, list a few adjectives describing how your group “feels” about the example.
- Are there any particular aspects of the design that give you these feelings?

New Czech National Library

Knihovna Liberec



Some online examples

- Go on the internet to see examples:
  - Mucha Museum
  - Museum of Communism

Museum of Communism image

More online examples

- Go on the internet to see:
  - Lord & Taylor
  - H&M
  - WalMart
  - Tesco
  - J.K. Rowling website (active)

Summary

- Human-computer interaction is an iterative cycle
- We can design information systems to afford (and even encourage) particular user behaviors
- User-centered design requires careful analysis of user characteristics and the goals that users want to achieve
- Good quality designs should be usable and enjoyable to use

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